NATURAL RESOURCES CONSERVATION SERVICE

VIRGINIA CONSERVATION PRACTICE STANDARD

HEDGEROW PLANTING

(Feet)

Code 422

DEFINITION

Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.

PURPOSES

Providing at least one of the following conservation functions:

- Food, cover, and corridors for terrestrial wildlife
- Break up large fields into smaller units to increase useable edge habitat for wildlife
- Living fences
- Boundary delineation
- Contour guidelines
- Screens and barriers to noise and dust
- Improvement of landscape appearance

CONDITIONS WHERE PRACTICE APPLIES

This practice applies wherever it will accomplish at least one of the purposes stated above.

CRITERIA

GENERAL CRITERIA APPLICABLE TO ALL PURPOSES

Hedgerows shall be established using woody plants, or perennial bunch grasses (e.g., native warm season grasses) producing erect stems attaining average heights of at least 3 feet and persisting well over winter. Refer to the *Plant Establishment Guide for Virginia* for plant selection and to Virginia Conservation Practice Standard *Tree/Shrub Establishment (Code 612)* for additional planting guidance.

Plants selected must be suited and adapted to the soils, climate, and conservation purpose.

No plant listed by the state as a noxious weed shall be established in a hedgerow. In addition, no invasive plant species will be used.

The practice shall be protected from livestock grazing and trampling to ensure that it will perform the intended purpose(s).

Competing vegetation shall be controlled until the hedgerow becomes established. Control shall continue beyond the establishment period, if necessary.

All planned work shall comply with federal, state, and local laws and regulations.

ADDITIONAL CRITERIA FOR WILDLIFE FOOD, COVER, AND CORRIDORS

Establish at least three species of native vegetation.

Selected plants shall provide cover and/or food to support the landowner's wildlife objectives. Refer to the *Plant Establishment Guide for Virginia* for species and spacing to use. In addition, hardwood trees can be spaced as close as 15 feet apart in rows and 12 feet between rows (10 feet X 10 feet for evergreens). It is best to stagger each row to provide a more natural condition. Minimum hedgerow width, at maturity, shall be 30 feet. Greater width provides more wildlife benefits.

ADDITIONAL CRITERIA FOR LIVING FENCES

Selected plants shall attain a size and spacing adequate to create a barrier to contain livestock or humans, as needed. Closer spacing for trees and/or shrubs can be recommended by the Virginia Department of Forestry.

If the purpose is to contain livestock, selected plants shall not be poisonous or hazardous to the animals.

ADDITIONAL CRITERIA FOR BOUNDARY DELINEATION

Hedgerows shall be aligned along boundaries of fields, or forestlands to differentiate land management units.

ADDITIONAL CRITERIA FOR CONTOUR GUIDELINES

Hedgerows shall be aligned so they provide permanent contour markers supporting implementation of Virginia Conservation Practice Standards *Contour Farming (Code 330), Contour Stripcropping (Code 585),* and *Contour Buffer Strips (Code 332).* Refer to those conservation practice standards for alignment criteria.

ADDITIONAL CRITERIA FOR SCREENS AND BARRIERS TO NOISE AND DUST

Screening hedgerows provide privacy, hide unsightly areas from view or reduce noise.

Hedgerows shall be located where they most completely obstruct a line of sight, offensive sound, or dust.

Selected plants shall attain a height and fullness sufficient to break the line of sight, or baffle sound and dust.

ADDITIONAL CRITERIA FOR IMPROVEMENT OF LANDSCAPE APPEARANCE

The hedgerow design shall meet the aesthetic objectives of the landowner. Plants shall be selected based upon the landowner's preferences for color, texture, and growth habits.

CONSIDERATIONS

GENERAL

Hedgerows can be planned in combination with other practices to develop complete conservation systems that enhance landscape aesthetics, reduce soil erosion, improve sediment trapping, improve water quality, and provide wildlife habitat.

Hedgerows following land contours create meandering lines on the landscape, produce a natural appearance, and increase the availability of "edge" wildlife habitats.

Hedgerows containing a mixture of native shrubs and small trees provide greatest environmental benefits.

Use of bareroot and containerized seedlings will accelerate hedgerow development.

Consider the amount of shading a hedgerow will provide at maturity. Shading may impact growth of adjacent plants, microclimate, and aesthetics.

Limiting renovation events to one-third of a hedgerow's length or width will prevent sudden elimination of the practice's wildlife habitat function.

Periodic root pruning can reduce nutrient and water robbing from adjacent cropland.

Consider avoiding the use of plants that spread by root suckers as hedgerow may expand beyond the desired treatment area.

WILDLIFE FOOD, COVER, AND CORRIDORS

Hedgerows can provide travel lanes, or corridors that allow wildlife to move safely across a landscape.

Generally, wider corridors accommodate more wildlife use.

Linking fragmented habitats may increase wildlife use of an area.

In grassland ecosystems, hedgerows may adversely affect area-sensitive nesting birds (e.g., meadowlarks, various sparrows, etc.) by fragmenting habitat patches and increasing the risk of predation.

Hedgerows can complement the availability of naturally occurring wildlife foods.

Hedgerows can provide wildlife with cover for feeding, loafing, nesting, and caring for young.

Dense or thorny shrub thickets provide songbirds with important nesting sites and a refuge to escape predators.

Establishment of evergreen plants as a component of the hedgerow provides year-round concealment and thermal cover for wildlife.

Establishment of herbaceous vegetation along the edges of a hedgerow can further enhance the habitat functions of a hedgerow.

When breaking up large fields, establish hedgerows about 250 feet apart to provide maximum utilization for edge related wildlife.

Installation of artificial nest boxes with predator guards can encourage cavity-nesting birds and small mammals to utilize a hedgerow.

LIVING FENCES

Thorny shrubs and trees can improve a living fence's barrier effect.

SCREENS AND NOISE BARRIERS

From eye-level, hedgerows reduce the line-of-sight across open areas, concealing objects behind them from view.

Consider the design from viewpoints on both sides of the screen.

Locate noise barriers as close to the source of noise as possible.

Combination of shrubs and/or trees can create more effective screens than single species plantings.

Evergreens provide foliage that can maintain a screen's year-round effectiveness.

IMPROVING LANDSCAPE APPEARANCE

Consider plants' seasonal display of colors on bark, twigs, foliage, flowers, and fruit.

Consider plants' growth habits (outline, height and width).

INCIDENTAL TRAPPING OF SNOW OR SAND

Although not a primary purpose, hedgerows may incidentally trap wind blown snow or sand.

Consider installing hedgerows on alignments that prevent trapping and accumulation of snow and sand on public roads.

Refer to the Virginia Conservation Practice Standard *Windbreak/Shelterbelt Establishment (Code 380)* for criteria when snow or sand trapping is a primary conservation purpose.

PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be recorded using approved specification sheets, job sheets, or narrative documentation in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

Supplemental planting may be required when survival is too low to produce a continuous hedgerow.

Vegetation shall be protected from unwanted fire and grazing throughout its life span.

Pests shall be monitored and controlled.

Periodic applications of nutrients may be needed to maintain plant vigor.

Renovation activities shall be scheduled to prevent disturbance during the wildlife nesting season.

REFERENCES

1. Field Office Technical Guide, NRCS.

2. National Biology Handbook, Part 614.4, "Conservation Corridor Planning at the Landscape Level", NRCS, August 1999.

3. *Plant Establishment Guide for Virginia*. NRCS.

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Approved Practice Narrative

(Feet)

CODE 422

422 D1 Hedgerow Planting: A hedgerow(s) will be established and maintained as indicated on the planning map to improve wildlife habitat and landscape appearance. Specifications will be provided.

422 D2 Hedgerow Planting: A hedgerow(s) will be established and maintained as indicated on the planning map to break up the large field(s) for increased wildlife use. Specifications will be provided.

422 D3 Hedgerow Planting: A hedgerow(s) will be established and maintained as indicated on the planning map. Specifications will be provided.

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